CFM3300 Bridge Media Converter
100Base-FX <> 10/100Base-TX
User's Manual

(620-0132-000)

1. Overview

IEEE 802.3u Ethernet supports two types media for network connection such as 10/100Base-TX and 100Base-FX. The bridge media converter is designed with a switch controller and buffer memory that connects two types segments operation smoothly. This converter can be used as a standalone unit or as a slide-in module to the 19" converter rack (up to 10 units) for use at a central wiring closet.

2. Model Description

Model	Connector Type
CFM3300C	Multi-Mode 1310nm Duplex-SC ↔ RJ-45
CFM3300T	Multi-Mode 1310nm Duplex-ST ↔ RJ-45
CFM3300C20/C40/C60	Single-Mode 1310nm Duplex-SC ↔ RJ-45
CFM3300C80/C100	Single-Mode 1550nm Duplex-SC ↔ RJ-45

*: Models with MT-RJ or VF-45 fiber connection are available only upon request!

3. Checklist

Before you start installing the Converter, verify that the package contains the following:

— The TP-Fiber Converter
— AC-DC Power Adapter
— This User's Manual

Please notify your sales representative immediately if any of the aforementioned items is missing or damaged.

4. Installing the Converter

For as a standalone unit:

⇒ Verify the AC-DC adapter conforms to your country AC power requirement and insert the power plug
⇒ Connect the media cable for network connection

For as a slide-in unit:

⇒ The slide-in Media Converter and Converter Rack should be supplied only from the same source, both Media Converter and Rack are built to match each other at dimensions, DC jack, DC receptacle and power safety
⇒ Turn off the 19" converter rack power
⇒ Ensure that there is no activity in the network
⇒ Locate +5V DC power jack on converter back, carefully slide in and plug to 19" rack +5V DC power receptacle
⇒ Connect the media cable for network connection
⇒ Turn on the converter rack power, the Power LED will light up

Fiber Port	Attach the fiber cable. The Tx, Rx fiber cable must be paired at both ends. Select the duplex mode to match the remote fiber partner mode. **Default**: Full duplex mode
TP Port	Attach TP Cat. 5 cable to TP port MPR (**Default**) : To a Switch or Hub DTE : To a workstation or Network Interface Card (NIC) "DTE"/"MPR" slide switch is on the side panel

Note for TP port cable connection:

a. Use the straight-through cable.
   Cable pin-outs for RJ-45 jack 1, 2, 3, 6 to 1, 2, 3, 6
b. MPR (Default) : To a Switch or Hub
   DTE : To a workstation or NIC
   (DTE pin-outs is crossover on board already)
   Configure the MPR-DTE slide switch on the side panel for cable connection to hub or Network Interface Card (NIC)
c. Be sure the proper wiring and the Link LED status

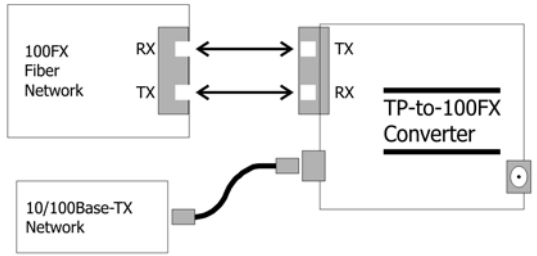


Fig.1 Basic Network Connection

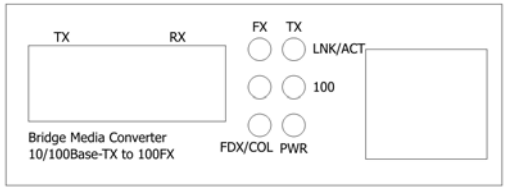


Fig. 2 Bridge Media Converter Front Panel

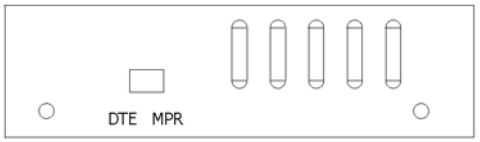


Fig. 3 Side panel

5. LED Description

LED	Color	Function
FX LNK/ACT	Green	Lit when Fiber connection is good Blink when fiber data is present
FX 100	Green	Lit for fiber 100Mbps operation
FX FDX/COL	Amber	Lit when full-duplex mode is active Off when half-duplex is active Blink when collision is present
TP LNK/ACT	Green	Lit when TP connection is good Blink when TP data is present
TP 100	Green	Lit when TP speed is 100Mbps Off when TP speed is 10Mbps
PWR	Green	Lit when +5V power is coming up

6. Connecting to TP, Fiber Device

Converter TP Port 10/100TX	Default: 10/100Mbps N-Way a. Auto-negotiation for N-Way TP partner b. Half-duplex for non N-Way TP partner, Class II Hub, or 10Base-T device
Converter Fiber Port 100FX	100Mbps with duplex mode selectable: a. Full-duplex for 100Fdx fiber link partner b. Half-duplex for 100Hdx fiber link partner FX duplex mode slide switch locates on the rear panel, see Fig. 4

Fig. 4 Rear Panel

Fiber Link Partner should be set at the same duplex mode. FX Mode Select Default: FDX (full-duplex)

7. Cable Connection Parameter

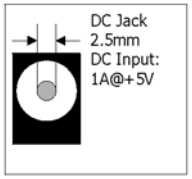
100Base-X network allows 512-bit time delay between any two node-stations in a collision domain. The overall bit-time of TP/Fiber wires and devices must be within 512-bit in a segment. You may use a switch to break up collision domain and extend the cabling distance.

- **TP Cable Limitations:** Cat. 5 100m
- **Multi-Mode Converters Fiber Cable Limitations:**
  2km in Full-Duplex mode and 412m in Half-Duplex mode
- **Single-Mode Converters Fiber Cable Limitations (Full-Duplex ONLY):**

CFM3300C Single-Mode Converter:					
C20	:	20km	C80	:	80km
C40	:	40km	C100	:	100km
C60	:	60km			

8. DC Jack and AC-DC Power Adapter

The DC jack's central post is 2.5mm wide; it conforms to the DC receptacle (2.5mm) on the 19-inch Converter Rack slot.



Keep the AC-DC adapter as spare parts when Media Converter is installed in a 19-inch Media Converter Rack.

9. Technical Specifications

- **Standards:** IEEE 802.3u 100Base-TX/FX
- **Models:**

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- **UTP Cable:** Category 5, up to 100m
- **Fiber Cable:**
  50/125, 62.5/125, or 100/140µm multi-mode, up to 2km
  8.3/125, 8.7/125, 9/125, or 10/125µm single-mode, up to 20~100km (models depended)
- **LED Indicators:** POWER, FX LNK/ACT, 100, TP LNK/ACT, FDX/COL
- **Data Transfer Rate:**

Speed	Forwarding Rate
100Mbps	148,800 PPS
10Mpbs	14,880 PPS

- **Flow Control:**
  IEEE 802.3x compliant for full-duplex, & Back pressure flow control for half-duplex
- **Power Requirement:** 1A@+5V DC
- **Ambient Temperature:** 0° to 50° C
- **Humidity:** 5% to 90%
- **Dimensions:** 26.2 x 70.3 x 94 mm (H x W x D)
- **Complies with FCC Part 15 Class A and CE Mark**

Note: Connecting to Router, Bridge, or switch, please refer to the device's Technical Manual.